

Berk Ulsoy - berk@ulsoy.org

Computer Engineer

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Summary

I am all round engineer with very exceptional multi-vendor multi-discipline experience and know-how. (My primary focus is Linux based solutions)

Certification

- Sun Certified System Administrator
- Sun Certified Network Administrator
- Oracle Database SQL Certified Expert
- Oracle Certified Associate
- Microsoft Certified System Administrator
- Microsoft Certified System Engineer
- Microsoft Certified Database Administrator

Skills

Operating Systems and Databases

- Operating Systems: Linux (since 1997, Ubuntu, Debian, Red Hat), Solaris (since 1997, v 2.5.1 to 10), Tru64, Windows (NT4/2000/2003)
- Databases: MySQL 3/4/5, Oracle 8i/9i/10g (RAC, Replication), PostgreSQL 8.x, Microsoft SQL Server 2000 (not after 2005)
- Networking: Extensive knowledge on network protocols. eg: TCP/IP stack, HTTP, SIP, FTP, SMTP, IPsec, IMAP, POP3, BitTorrent, RADIUS, ARP/RARP, DHCP, BOOTP

Services

- Web Servers: Apache, nginx
- Mail Systems: Postfix, sendmail, exim, qmail, Spamassassin, Mailscanner
- File Services: NFS, Samba (CIFS/SMB), proftpd, vsftpd, DFS, AutoFS
- Print Servers: CUPS
- Proxy Servers: Squid, Microsoft ISA Server 2000/2004
- Firewall - VPN: iptables, shorewall, tc, iproute2, Fortigate, Checkpoint NG (not after 2004), ipsec, (past) openvpn, ipf (basic)
- LDAP Servers: openLDAP
- Name Services: NIS
- DNS Servers: BIND 4.X/8.X/9.X, powerdns (basic)
- Monitoring: Nagios, MRTG, cacti, RRDTool, OpenNMS, OpenTSDB
- IDS: Nessus, Snort, nmap
- Virtualization: linux-vserver, VMWare ESX, Xen (basic), OpenVZ, KVM
- VOIP Systems: Alcatel-Lucent 5020 Carrier Grade Softswitches, ACME Packet Session Border Controller (basic)
- RAID and volume systems: Solaris Volume Manager, Linux Logical Volume Manager (LVM), Linux dm-raid/MD, Microsoft Dynamic Disks, Sun Storedge, Veritas volume manager, HP MSA disk arrays, Tru64 LSM

- Routing and Switching: Alcatel-Lucent Service Routers and OmniSwitch, Cisco switch and routers (Basic)
- Others: Sun Cluster, TruCluster, Red Hat Cluster Services, Linux Virtual Server (LVS), HAProxy, Cobbler, IP and I/O multipathing, PAM, GFS, Heartbeat, Pound, Varnish, Redis, Node.js, kannel, ~~TeX~~
- Windows: (Past) IIS, domain management, GPOs, Active Directory, RIS, Terminal Server

Software Development

- Programming Languages: Actively Python, PHP, Java, Scala, Javascript. In the past Perl, C, C++, Ruby (for Puppet), Delphi, Pascal, x86 Assembly, Visual Basic
- Frameworks: Django, ExtJS, Akka, Node.js. In the past Mason, Turbogears
- Tools: GCC, Sun Compiler Collection, Subversion, Git, Maven, Visual Studio (6.0/97), Android SDK (basic), Eclipse, Idea, Vim, Emacs, gdb, pstack, strace, truss, ladebug, Borland Jbuilder (not after 2000)

Work Experience

Alcatel-Lucent Bell N.V - Operations at Appglide, Bell Labs Jan, 2010 - Now

Operations, software development and platform support for the P2P network optimization suite and online video analytics solution

- Operations and deployment support for all production, test and development hosts (virtual and physical), Amazon EC2 hosts
- Database (MySQL) and Linux/Network performance tuning
- Management of routers, switches and firewalls
- Platform design
- Development of platform and central management portals for systems, protocol dissectors, all kinds of automation tools including web based interfaces (eg: centralized and dynamic reconfiguration of all deployed routers and firewalls)
- Research areas like providing POC for alternative solutions using products like Node.js, Redis or tools written in Scala

Alcatel-Lucent - Network Design Integration & Operation Jul, 2009 - Jan, 2010

Providing hardcore UNIX expertise, database tuning, network troubleshooting and development, architectural decisions

- Create, provide self management scripts and tune MySQL server for AVEA (GSM operator) in order to store +100 million rows monthly, 1.5TB foreseen yearly event with purging old data
- Wrote many tools for automation, management and reporting
- Responsible for design of hardware/software/network, implementation and tuning of 20 TB PostgreSQL database + 100TB file storage + 30 servers for Turk Telekom network management system with complete deployment and monitoring solutions
- Responsible for interviewing and proposing an SAN (Storage Area Network) solution (+50TB) as well as designing platform and network that will be connected to it

Alcatel-Lucent - NGN International L3 Support Engineer (R&D) Jan, 2007 - Jul, 2009

Alcatel-Lucent provides carrier grade VOIP software. As part of R&D and owner of the product, I was providing top level support to software, OS, database, network, interoperability issues that could not be solved other teams.

- Kernel and network stack level operating system tuning, troubleshooting and kernel crash analyses for Linux, Solaris, Tru64 based systems (More than 300 IPVS, Sun Cluster and TruCluster worldwide)
- Volume management of clusters using Veritas VxVM, SVM, Advfs, LSM, LVM

- Create 4 node Linux GFS + IPVS cluster with multimaster MySQL replication, OpenVZ virtualization and Nagios + Cacti with management scripts for Mobile Number Portability Project
- Create and proposed Nagios + Cacti based monitoring solution for situations that need more than SNMP ever can
- Troubleshooting and performance tuning for single and replicated MySQL 5.1 clusters (not NDB), Oracle 8i/9i/10g with RAC and multimaster replication
- Network trace analyses to find RFC compliancy and interoperability issues in SIP, HTTP, SOAP, MEGACO, RTP and RADIUS protocols
- Writing ad-hoc tools for specific customer needs
- Instruct internal courses for juniors (i.e introductory courses for TCP/IP, Linux)
- 7/24 on-call weekly rotation for customers like British Telecom, Wind, Telenor, T-Sytems, Bezeq, Telstra, Telmex, Copaco, France Telecom, Orange, Vodafone

Parkyeri A.S - Support Group Supervisor Apr, 2006 - Jan, 2007

In this term, Parkyeri has been the fastest growing internet company according to Deloitte Fast Track. Worked as team leader

- Leading and performance evaluation of support group members, production planning, support and coding for products, installation management and performance tuning of over 130 Linux/Solaris servers

Kuleli Military High School - IS Officer Jul, 2005 - Apr, 2006

Kuleli is the oldest and most respected military high school in Turkey. The compulsory service completed

- Central management of over 500 desktop pc, 12 Windows 2000/2003 Servers with 4 domains, 160 printers
- Development of an online education portal using PHP
- Commanding an armed squad

Parkyeri A.S - System Engineer Jan, 2004 - Apr, 2005

Parkyeri is the leading software development company with its unique products and work style. The product portfolio includes value added services for Turkcell, e-commerce sites and Web 2.0 based sites. The company is unique in Turkey in terms of aggressively embracing and promoting Free Software. Worked as system engineer and software developer

- Supporting and coding for products, installation, management and performance tuning of over 100 Linux/Solaris servers spread over 2 offices, 3 ISP, 2 GSM operators (Turkcell (Over 30 million subscribers), Life-Ukraine), and Genpa(Mobile phone seller giant in Turkey)
- Implemented monitoring and performance visualization system by checking 280 nodex using Nagios and Cacti with hand written tools (Alerts with e-mail and SMS)
- Manage services that include highly utilized sms servers (millions of SMS per day), e-commerce services, mail servers supporting user customizable server side spam filters (Exim, Postfix, Horde), web (Apache-PHP, Squid, Pound), dns (BIND), development and application servers (Subversion, Tomcat, JBoss)
- Management of Linux based diskless client network (25 clients and 4 terminal servers), multimaster corporate file system replication (unison)
- Security checking via Nessus, nmap and snort
- Iptables and shorewall configurations of firewalls

Executrain Education Services - Freelance Instructor Sept, 2003

Instructing Windows 2000 Server and Active Directory course for a media group's system administrators.

BNET (Borusan Telekom) - System Engineer Mar, 2003 - Aug, 2003

BNET is one of the largest ISP. Worked mainly as system and security engineer with some minor network administration

- Support for ISP services (apache, IIS, bind, sendmail, Mailsite), management installation and performance tuning of both ISP and customer servers
- DBA of MySQL, MSSQL, Oracle systems
- Firewall management (iptables, Checkpoint)

Freelance - System Administrator Nov, 2001 - Mar, 2003

- Installation and troubleshooting of various services, mainly LAMP and e-mail.
- Development of PHP/MySQL based small sites

Koc.net - Unix System Administrator Sep, 2000 - Oct, 2001

Koc.net is large ISP that targets commercial customers, owned by Koc Group. Recently acquired by Vodafone.

- Support for ISP services (apache,qmail,bind,irc), installation, management, performance tuning for over 70 Solaris/Linux servers
- DBA for some Oracle and MySQL servers

IDG - Freelance Writer - 2001

Freelance technical writer for several issues of PCWorld and ComputerWorld magazines.

Marmara U. Dept. of CSE Student/Teaching Assistant Nov, 1996 - Jun, 2000

Instructing core CSE courses since 2nd grade, management of faculty network, 10 servers (Solaris 2.4/2.5.1, Linux (1.3), Windows NT4/2000 domain, faculty e-mail (sendmail/iPlanet) and web servers (apache/iPlanet)) and computer labs consisting 150 pc.

Courses

- SA-400 Solaris Performance Tuning - KocSistem 2000
- Korn Shell Programming - KocBryce 2001

Education

B.Sc. Computer Engineering - Marmara University June, 1999
Thesis: Distributed Collaborated Project Management Tool with JAVA-RMI

Organizations

Free Software Foundation

Seminars

- Licenses, Patents, Free Software and Commerce Marmara U. CSE, Nov. 2006
- Licenses, Patents, Free Software and Commerce Bilgi U. CS, Dec. 2006
- Licenses, Patents, Free Software and Commerce Bogazici U. CSE, Dec. 2006
- World of VOIP Marmara U. Computer Engineering, Apr. 2009
- Linux in Enterprise Marmara U. Computer Engineering, May. 2009

Personal

- Date of Birth: 1977, Istanbul/Turkey
- Marital Status: Married, with a child
- Driving License: B

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